

REMARKS

In the Examiner's Answer of December 12, 2005, several new grounds of rejection were made. One new ground was that all of the claims in the application were rejected as unpatentable over Marthaler, in various combinations with previously asserted prior art patents of Hauffe, Goodwin and Bonnema. Marthaler is cited to address "compression molded". Another new ground of rejection is the Examiner's assertion that "compression molded", as provided by the claims, is a process limitation. The Examiner had not previously characterized the limitation as a process, and thus Applicant was unable to address this contention previously.

The Examiner rejected claims 5, 6, 13, 18-35, 39, 40, 42, 44 and 59-75 under 35 U.S.C. §103(a) as being unpatentable over Hauffe in view of Marthaler. Applicant respectfully traverses this rejection.

Hauffe teaches a plastic meter box 11 and a corresponding plastic lid 31. The lid 31 has recesses, best shown in Fig. 2. Hauffe is preoccupied with providing a lid with a reader hatch 49 that can be opened to look inside the box without removing the whole lid 31. The lid 31 is locked in place by latch 41. Hauffe teaches that the lid is injection molded. Hauffe refers to two patents, 3,268,636 and 3,436,446, both of which teach injecting a foamable plastic into a mold by a piston.

Hauffe has no teaching of how strong the lid is. The Examiner characterizes the strength limitation as functional rather than structural, citing *Hewlett-Packard Co. v. Bausch & Lomb, Inc.*, 909 F.2d 1464, 1469, 15 USPQ 2d 1525, 1528 (Fed. Cir. 1990). However, the Examiner

mischaracterizes *Hewlett-Packard*. The court in *Hewlett-Packard* discussed whether a pinch roller assembly in a plotter was obvious over a prior art knurled wheel. The pinch roller had a “rough surface” with “a random pattern, size and height of rough spots.” The court found that this was a reasonable description of grit and therefore distinguished over the prior art. The court said that an apparatus claim covers what a device is and not what a device does. The court went on to say that “An invention need not operate differently than the prior art to be patentable, but need only be different.” The Examiner interprets this as a prohibition against functional limitations, but the court’s language clearly permits functional language. Thus, an applicant can rely on operational differences to distinguish over the prior art, but is not forced to do so. This is supported by *In Re Schreiber*, 128 F.3d 1473, 1478 44 USPQ 2d 1429 (Fed. Cir. 1997) which states that a “patent applicant is free to recite features of an apparatus either structurally or functionally.”

In addition, evidence is presented herein. The Examiner’s attention is invited to the attached Declaration of Robert McKinnon, Jr. Mr. McKinnon states that he is familiar with injection molded lids as taught by Hauffe and that such lids have a load strength of only about 1,200 pounds. Nothing in Hauffe teaches any heavier or stronger type of lid and it does not teach a lid capable of withstanding 8,000 pounds, as provided in the claims. As stated by Mr. McKinnon in his declaration, making an injection molded lid capable of withstanding 8,000 pounds presents technical problems in the molds and resins. Mr. McKinnon, who has at least ordinary skill in the art, would not have looked to injection molded lids to withstand 8,000 pounds.

In addition, the Examiner suggests that the Hauffe lid can be modified by compression molding. Applicant disagrees that the prior art teaches or suggests a compression molded lid capable of withstanding a load of 8,000 pounds. As stated by Mr. McKinnon, compression molding was traditionally used to make plastic parts of one-fourth inch (1/4") or less. A lid with one-fourth inch (1/4") or less is shown by Hauffe. Nothing in Hauffe or in the prior art compression molding teaches making a lid capable of withstanding such a large load as provided in the claims.

Even though Marthaler mentions that the housing and lid can be made by different manufacturing processes, the only manufacturing process of any practicality is that of injection molding. As stated by Mr. McKinnon in his declaration, the other types of molding, blow, thermo and compression, would not be practical. Thus, one with ordinary skill in the art would not look to modify Hauffe by compression molding, based upon the teaching of Marthaler. In fact, one of ordinary skill in the art would cast a dim eye over relying on Marthaler's teaching of molding other than by injection molding. Thus, Marthaler reinforces Hauffe and the prior art utility lids by teaching injection molding to one of ordinary skill in the art.

Furtherstill, Marthaler does not teach plural recesses. Even if one with ordinary skill in the art were to rely on Marthaler for compression molding a lid, the lid would look like that of Marthaler, without recesses, and only having a side border 120, 122, 124. Because compression molding is like stamping, the fewer the recesses, the more economic the mold.

The Examiner also provides a new ground of rejection in the contention that "compression molded" is a process limitation, thereby

making the claim a product by process claim. The Examiner contends that the process limitation adds no patentable distinction to the claim. Applicant respectfully disagrees. "Compression molded" is a structural limitation, not a process limitation. See *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (words of limitation that can connote with equal force a structural characteristic of the product or a process of manufacture are commonly and by default interpreted in their structural sense, unless the patentee has demonstrated otherwise. The court concluded two or more superimposed embossed patterns as a structural limitation, not a process limitation). Of particular interest is *Hanzai v. United States Int'l. Trade Comm'n.*, 126 F.3d 1473, 1479 (Fed. Cir. 1997) (concluding that "chemically engraved" was not a process term). See also *Vanguard Prods. Co. v. Parker Hannifin Corp.*, 234 F.3d 1370, 1372 (Fed. Cir. 2000) (holding that the claim term "integral" describes a structural relation, not the particular manufacturing process related in the specification).

Because "compression molded" is a structural limitation, then it should be given due consideration in determining the overall patentability of the claims.

Furthermore, claims 59-75 have been amended to provide that the plastic is compressed. "Compressed plastic" is a structural limitation, not a process limitation.

Claims 5, 18, 59, 60 also provide that the length of the elongated edges of the recesses are longer than one-half a given dimension of the member. This is illustrated in Figs. 2 and 9 where the recesses 23 have a long side L4 and a short side W1, W2. The long side L4 is more than one-

half the length of side 21A of the lid. The recesses of Hauffe and Marthaler lack this dimensional requirement in that the recesses are not long or wide enough. In fact, it takes four recesses to extend in either dimension of the Hauffe lid, as shown in Fig. 2 of Hauffe. Each Hauffe recess is less than one-fourth the length or width of the lid. The length of the recess edge is noted in the claims 5, 18, 59 and 60 because the recesses enhance the curing of the plastic in this solid, strong lid. (See Declaration of Robert McKinnon, Jr., February 12, 2004, paragraphs 9 and 10.)

The Examiner states that the "given dimension" has not been defined. Claims 18 and 60 have been amended to provide that the given dimension is for a side of the lid.

In addition, claims 19, 25, 62 provide two recesses of different shapes and dimensions. One recess has long and short edges. The other recess has transverse edges that are longer than the short edges of the one recess (See for example, Fig. 2 of the subject application, showing one recess 23 and another recess 27, 29.) The recesses 27, 29 are useful for receiving meter-reading equipment. Hauffe and Marthaler do not teach this and instead Hauffe shows recesses of equal size.

Furtherstill, claim 69 provides that the recesses have a depth and at least some of the recesses are spaced apart from each other a distance greater than the depth. Claim 69 has been amended to provide that adjacent recesses are spaced apart from each other by the appropriate limitation. For example, in Fig. 10, the triangular recesses have a depth of H2, and are spaced apart from each other by a distance of W3. W3 is greater than H2. Applicant previously enclosed in the Evidence Appendix to Appellant's Brief a marked up copy of Hauffe, Figs. 1 and 2, showing the corresponding

dimensions H2 and W3. As can be seen, W3, the spacing between the recesses, is smaller, not larger, than H2, the depth of the recesses. Thus, Hauffe shows the opposite of the claimed invention.

Furtherstill, in claim 74, the recess is for remote reading equipment. Hauffe and Marthaler do not teach this.

Claim 75 provides that the lid can withstand a load of at least 9,000 pounds. Hauffe and Marthaler do not teach this.

Claims 20-24, 26-35, 42, 61 and 63-65 provide that the recess is triangular in cross-section. This shape is useful in curing the plastic of the compression molded lid that can withstand a high weight. Also, as stated in Mr. McKinnon's Declaration of October 5, 2001, the slanted angular surfaces of the elongated recesses provide support for loads and make a very strong plastic lid. (See last sentence of first paragraph of Declaration of October 5, 2001.) Hauffe does not teach or suggest such recesses. The Examiner's contention that the cross-section would give a more decorative appearance does not present a *prima facie* case of obviousness, as the reference does not teach or suggest the modification, nor is there any suggestion in Hauffe to make this modification. The recess is in the lower surface of the lid. When in use, the recess faces inside the utility box and is therefore invisible. Also, the use of angular recesses uses more plastic and adds to the expense of the lid.

Claims 21, 24, 30, 33, 34 are dependent upon claims 20, 23, 26 and 31 and further provide two recesses of different shapes and dimensions. As discussed above with respect to claim 19, Hauffe and Marthaler do not teach this.

Claims 28, 29, 35 are dependent claims that further provide that the length of the elongated edges of the recesses are greater than one-half the dimension of the lid member. As discussed above with respect to claim 5, Hauffe and Marthaler do not teach this.

Claim 42 provides that the plastic has a density of .938-.942. Hauffe and Marthaler have no teaching of what plastic density is used. Hauffe distinctly teaches a preference for foamed plastic, which likely has a lower density. As stated in Mr. McKinnon's Declaration, compression molding squeezes bubbles from the plastic to increase the strength (paragraphs 8, 9 of Declaration of February 12, 2004).

Claim 61 provides that the recesses are closer to the outer edge of the lid than to each other. Hauffe has no teaching about this, other than what is shown in the drawings. The ribs are of equal width.

Claim 44 provides that the plastic has a density of .938-.942. As discussed above with respect to claim 42, Hauffe does not teach this.

Claim 66 and its dependent claims provide that the recesses have a depth that is no greater than two-thirds of the thickness between the member upper and lower sides. Again, the recesses of Applicant's invention are for curing a solid plastic compression molded lid, while still maintaining high strength. The recesses of Hauffe have a depth of 5/6 the overall thickness (using Fig. 1). That is to say that the recesses of Hauffe are deeper than the claimed invention. Hauffe and Marthaler have no mention of plastic curing. The thin ribs of a Hauffe lid would not present a curing problem. The preferred use of foamed plastic by Hauffe further leads one away from a curing problem. The Examiner does not present a *prima facie* case of obviousness, as the reference does not teach or suggest the modification, nor

is there any suggestion in Hauffe to make this modification. One with ordinary skill in the art would not look to Hauffe to obtain relatively shallow recesses.

Nor does Hauffe, with its use of foamed plastic in the preferred and illustrated embodiment, have the curing problem associated with compression molding thick plastic pieces of one and a half inches, as provided in claims 67, 70, 71 and 73. Because there is no suggestion to modify Hauffe, there is no *prima facie* case of obviousness.

Even assuming, arguendo, that a *prima facie* showing of obviousness has been shown, Mr. McKinnon's declarations rebut any *prima facie* case of obviousness. In his attempts to produce a plastic lid that has the immense strength of cast iron, as one with ordinary skill in the art, Mr. McKinnon initially tried a solid lid with no recesses. When he encountered the curing problem, he tried recesses and realized that instead of weakening the lid, the recesses made it stronger by allowing the plastic to cure. Mr. McKinnon went beyond routine experimentation in attempting to develop a thick compression molded lid that would not warp and that would properly cure. Thus, there was no reasonable expectation of success in modifying Hauffe as proposed by the Examiner.

Because the Examiner has not made a *prima facie* case of obviousness, or to the extent the Examiner has made a *prima facie* showing of certain elements, that showing has been rebutted by factual evidence, the claims are not obvious over the references.

The Examiner rejected claims 1, 3, 4, 9, 12, 15-17, 37 and 58 under 35 U.S.C. §103(a) as being unpatentable over Hauffe in view of Goodwin and Marthaler. Applicant respectfully traverses this rejection.

Hauffe and Marthaler have been discussed above. Goodwin shows recesses.

The Examiner has not made a *prima facie* case of obviousness with regard to claims 1 and 58. As stated by Mr. McKinnon, the Goodwin lid is blow molded and is weaker than the Hauffe lid. As one with ordinary skill in the art, he would not make the Hauffe lid stronger by using anything from the Goodwin lid.

The inventor, Mr. McKinnon, is familiar with lids of the same type as Hauffe (See Declaration of Robert McKinnon, Jr., (2-12-04) paragraph 7) and also has reviewed patents similar to Goodwin, which patents teach hollow lids (See Declaration of Robert McKinnon, Jr., (2-12-04) paragraphs 11-14). Mr. McKinnon, who has at least ordinary skill in the art, would not look to hollow lids to design a utility box lid. Based on his experience in plastics manufacturing, he would not look to double wall lid patents to design a compression molded lid.

Furthermore, there is no reasonable expectation of success. As stated by Mr. McKinnon, he was familiar with injection molded, ribbed lids before he began working on the invention, and knew that they were limited in strength (See Declaration of Robert McKinnon, Jr., (2-12-04) paragraph 7). That is why he ultimately used compression molding (See Declaration of Robert McKinnon, Jr., (2-12-04) paragraphs 9-10).

Furthermore, it not clear if Goodwin actually does teach the area of the lower surface 11 being greater than the total area surrounded by the outer

edges of the recesses 22, B. Goodwin makes no mention of it. Fig. 4 shows a bottom view of the lid. (The Examiner refers to Fig. 2 in the final rejection, but Fig. 4 is a plan view of the bottom side of the lid and thus provides a more accurate view). One can take a ruler and measure the area of the recesses and the area of lower surface; doing so produces a result that shows the two areas are about the same. But, why would one with ordinary skill go to all the trouble to measure and calculate the areas of Goodwin's Figs. 2 and 4? Not to increase the strength of the lid (Goodwin teaches using reinforcing cups 22 in a hollow lid), as the Examiner states. Hauffe and Goodwin do not teach the claimed invention nor do they provide a motivation to modify the Hauffe lid.

The mere fact that the prior art may be modified in a manner suggested by the Examiner does not make the modification obvious, unless the prior art suggested the desirability of the modification. *In re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780 (Fed. Cir. 1992).

Even supposing that one with ordinary skill in the art wanted to make the Hauffe lid stronger, and that he or she may well make the ribs thicker, there is nothing in the references to suggest that the ribs of a modified Hauffe lid should be so thick as to have a total surface area that is greater than the surface area of the recesses. At most, Goodwin teaches that its ribs correspond with recesses in order to stack lids.

The lid of Lang actually leads away from Applicant's invention. Lang shows a lid for a manhole, which lid is strong and heavy. In fact, one of Lang's goals is to make a lid so heavy that children have difficulty moving it. The lid has recesses for receiving the bottom ends 28 of the handles. The lid is also mostly cement, contained in a plastic jacket. Thus, Lang teaches

one with ordinary skill in the art that to make a heavy and strong lid, use either jacketed cement or cast iron. Plastic as a lid material is only suitable for the jacket.

Furthermore, there is no evidence of a reasonable expectation of success in modifying Hauffe as proposed by the Examiner. The combination of ribs from a hollow lid (Goodwin) with an injection molded lid (Hauffe) presents technical challenges not addressed by the Examiner.

Even assuming, *arguendo*, that a *prima facie* showing of obviousness has been shown, Applicant has successfully rebutted any such showing with evidence.

Because the Examiner has not made a *prima facie* case of obviousness, or to the extent the Examiner has made a *prima facie* showing of certain elements, that showing has been rebutted by factual evidence, claims 1, 3, 4, 9, 12, 15-17, 37 and 58 are not obvious over the references.

Furthermore, claim 3 is dependent upon claim 1 and further provides that the lengths of the elongated edges of the recesses are greater than one-half of the dimension of the lid. As discussed above with respect to claim 5, Hauffe does not teach this.

Furtherstill, claim 17 provides that a recess in an upper surface is partially aligned with a recess in the lower surface (see for example, Fig. 10). While Goodwin shows aligned recesses, Goodwin is a hollow lid that derives strength from two walls contacting each other. One with ordinary skill in the art would not look to Goodwin for teachings on positioning recesses in a solid compression molded lid.

The Examiner rejected claim 2 under 35 U.S.C. §102(a) as being unpatentable over Hauffe in view of Goodwin and Marthaler and further in view of Bonnema. Applicant respectfully traverses this rejection.

Bonnema shows a lid with wedges. Claim 2 is dependent upon claim 1, the patentability of which has been discussed above.

The Examiner rejected claim 7 under 35 U.S.C. §103(a) as being unpatentable over Hauffe in view of Marthaler and further in view of Bonnema. Applicant respectfully traverses this rejection.

Claim 7 is dependent upon claim 5, the patentability of which has been discussed above.

The remaining grounds of rejection are identical to those discussed above, with the exception that Marthaler is not made part of the rejection. Applicant is uncertain whether these remaining grounds of rejection would still apply by the Examiner now that the case has been withdrawn from appeal. The other grounds of rejection do not address the compression molded aspect of the claims. To the extent that these prior grounds of rejection do in fact apply, the Applicant incorporates the responses noted above as to those grounds of rejection.

In view of the foregoing, it is respectfully submitted that all the claims in the application are allowable, and such allowance is respectfully requested.

If any additional fees are required, please charge our deposit account number 23-2770.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Geoffrey A. Mantooth', with a stylized, sweeping flourish extending from the end of the name.

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